

#### ABSTRACT

An arrangement in a fuel injection system for controlling the fuel injection includes a body part having a space, through which the fuel to be injected during operation flows, and a fuel inlet opening and an outlet opening opening into the space. A piston is arranged movably inside the space, the piston having a channel arranged therein for creating a flow connection between the fuel inlet opening and the outlet opening, whereby the piston divides the space into a first part connected with the inlet opening and a second part connected with the outlet opening. A spring creates a force acting on the piston in a direction opposite to that of the main fuel flow. The piston and the body part are formed so that when the piston is in the end adjacent the fuel inlet opening it delimits a third space, the volume of which depends on the mutual positions of the piston and the body part.